

# **MI DEQ & RETAP Pollution Prevention (P2) Training**

## ***Food Processing P2***

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# **Overview of P2 Techniques**

- ☐ **Reducing, recycling & preventing packaging waste**
- ☐ **Composting, land spreading, rendering & animal feed**
- ☐ **Food processing operations & cleanup procedures**
- ☐ **Preventive maintenance**
- ☐ **Pesticide use**
- ☐ **Food banks**



# **Packaging Wastes & Material Substitutions**

## **□ Implement EPP policy & program**

- ⇒ Assigned responsibility**
- ⇒ Minimal packaging (from recycled materials)**
- ⇒ Reusable packaging (from recycled materials)**
- ⇒ Concentrated forms**
- ⇒ Bulk quantities**
- ⇒ Separation of packaging wastes to enhance reuse/recycling**
- ⇒ Using alternative refrigerants**
- ⇒ Less toxic detergents & cleaners**
- ⇒ Pesticides & integrated pest management (IPM)**

# **Solid Wastes**

- ☐ **Metal Wastes**
- ☐ **Paper Products**
- ☐ **Aerosol cans**
- ☐ **Fluorescent Tubes**
- ☐ **Fats, oils & grease (FOG)**
- ☐ **Food wastes**
  - ➡ **On-site composting or Off-site**
  - ➡ **Land spreading**
  - ➡ **Animal feed for local farmers (Jack Daniels, Bakery Feeds & “Lint-fed Beef”)**



# **Waste Water: Process & Equipment Modification**

- ☐ **Replacing faucets (on-demand control devices)**
- ☐ **Automatic shutoff timers**
- ☐ **Monitoring & measuring usage with flow meters**
- ☐ **Process water reuse (countercurrent washes)**
- ☐ **Reduce change-over cleanups**
- ☐ **Spillage & floor washing (maintenance & housekeeping)**
- ☐ **Boiler blow-downs**
- ☐ **Domestic sewage**
- ☐ **Exterior water use reduction**

# **Operational & Housekeeping Changes**

- ☐ **Inspections of potential water discharge areas**
- ☐ **Measure edible & inedible food waste**
- ☐ **Prevent waste product from entering drains  
(BOD & COD surcharges – “Broke bottle filler”)**
- ☐ **Containment during loading & unloading**
- ☐ **Stormwater management (Roofing & Gutter Act)**
- ☐ **Dry cleanup procedures & precleaning**
- ☐ **Grease trap management**



# **Preventive Maintenance**

- ❑ Leaking lines, pumps & valves**
- ❑ Refrigerators, freezers & air conditioners**
- ❑ E2 for lighting or refrigeration systems**
- ❑ Dumpsters & compactors inspected for leaks**
- ❑ Covering inside floor drains (non-production areas)**
  - ➡ Difficult to wash spills into drains**
  - ➡ Reduce/Eliminate spill expenses due to material usage**

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***Next Steps: Assess Food Processing Operations & Implement P2!***

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